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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,872	04/20/2001	Yasuaki Yamagishi	450100-03167	4338
20999	7590	08/25/2005	EXAMINER	
FROMMER LAWRENCE & HAUG 745 FIFTH AVENUE- 10TH FL. NEW YORK, NY 10151			KIM, JUNG W	
			ART UNIT	PAPER NUMBER
			2132	
DATE MAILED: 08/25/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/839,872

Applicant(s)

YAMAGISHI ET AL.

Examiner

Jung W. Kim

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This Office action is in response to the RCE filed July 6, 2005.
2. Claims 1-15 are pending.
3. Claims 1, 5, 6, 9, 10 and 15 are amended.
4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Continued Examination Under 37 CFR 1.114***

5. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 6, 2005 has been entered.

***Response to Amendment***

6. The objection to claim 6 is withdrawn as the amendment overcomes the objection.
7. The 112/2<sup>nd</sup> rejection to claims 7 and 8 are withdrawn as the amendment to claim 6 overcomes the 112/2<sup>nd</sup> rejection.

***Response to Arguments***

8. Applicant's arguments with respect to amended claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 101***

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-15 are rejected under 35 U.S.C. 101 the claimed invention is directed to non-statutory subject matter. Claims 1-15 are not limited to tangible embodiments. In view of Applicant's disclosure, specification pg. 29, lines 25-26 and pg. 32, lines 12-13, the medium is not limited to tangible embodiments, instead being defined as including both tangible embodiments (e.g., hardware implemented) and intangible embodiments (e.g., software). As such the claims are not limited to statutory subject matter and are therefore non-statutory.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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11. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Micali U.S. Patent No. 6,097,811 (hereinafter Micali) in view of Stallings Cryptography and Network Security, Section 11.2 "X.509 Authentication Service" (hereinafter Stallings).

12. As per claim 1, Micali teaches a transmitting apparatus for transmitting a layer structure of a directory which manages public key certificate information in a layer manner (Abstract), comprising:

- a. managing means for making certificate authority information corresponding to a container entry which can store its own subordinate information, making end entity information correspond to a leaf entry which is under domination of the container entry and cannot store its own subordinate information, and managing a layer structure of a directory constructed by the container entry and the leaf entry (col. 4:4-5:33 and definition of root/leaf node in Merkle tree);
- b. detecting means for detecting a change of the layer structure of the directory which is managed by the managing means and obtaining differential information constructed by a difference of the change of the layer structure of the directory on the basis of a detection result (7:41-65); and
- c. broadcasting means for broadcasting the differential information detected by the detecting means for reception by a plurality of several means (5:15-20; 7:52-58),

d. wherein information which can obtain latest public key certificate information and lapse information of the latest public key certificate information are stored into the container entry and/or the leaf entry at a predetermined time interval (2:15-21; 5:43-48; 6:18-45; 7:59-65).

13. Further, Micali discloses the values of the serial numbers of the certificates combined with other information are stored in each container entry and/or leaf entry (5:8-14, "certificate node"; 43-48; 18-45; claim 8); however, Micali does not explicitly disclose the lapse information stored in the container entry and/or leaf entry including a method of obtaining the latest public key certificate information. Stallings discloses various attribute listings included within a certificate including alternative naming conventions of the certificate subject and/or issuer and means to identify the subject and/or issuer (pg. 349, "Certificate Subject and Issuer Attributes"). This feature identifies how to obtain the latest public key certificate information. Hence, it would be obvious to one of ordinary skill in the art at the time the invention was made for the lapse information stored in the container entry/or leaf entry to include a method of obtaining the latest public key certificate information, since it is desirous to include attributes that identifies the issuer of the certified key. Stallings, pg. 349, "Certificate Subject and Issuer Attributes", 1<sup>st</sup> paragraph. The aforementioned cover the limitations of claim 1.

14. As per claim 2, the rejection of claim 1 under 35 U.S.C. 103(a) is incorporated herein. (supra) In addition, the lapse information is a serial number of the public key certificate information (col. 6:18-45).

15. As per claim 3, the rejection of claim 1 under 35 U.S.C. 103(a) is incorporated herein. (supra) In addition, one of the latest public key certificate information and the information for obtaining the latest public key certificate information can be selected and stored in to attributes of the container entry and/or the leaf entry (col. 5:4-7).

16. As per claim 4, the rejection of claim 3 under 35 U.S.C. 103(a) is incorporated herein. (supra) In addition, the information which is stored into the attributes can be changed between the latest public key certificate information and the information for obtaining the latest public key certificate information in accordance with an elapsed time from an updating event in which the difference has been detected by the detecting means (5:40-47).

17. As per claim 5, it is a method claim corresponding to claims 1-4 and it does not teach or define above the information claimed in claims 1-4. Therefore, claim 5 is rejected as being anticipated by Micali for the same reasons set forth in the rejections of claims 1-4.

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18. As per claims 6-8, the rejections of claims 1-4 under 35 U.S.C. 103(a) are incorporated herein. (supra) In addition, Micali teaches a corresponding receiving apparatus comprising:

- e. receiving means for making transmitted certificate authority information correspond to a container entry, making end entity information correspond to a leaf entry, and receiving differential information comprising a difference of a change of a layer structure of a directory (col. 5:15-34; 7:41-65);
- f. managing means for managing the layer structure of the directory constructed on the basis of the differential information received by the receiving means; and changing means for selectively fetching the differential information and changing the layer structure of the directory which is managed by the managing means (7:59-65).

The aforementioned cover the limitations of claims 6-8.

19. As per claim 9, it is a method claim corresponding to claims 6-8 and it does not teach or define above the information claimed in claims 6-8. Therefore, claim 9 is rejected as being anticipated by Micali for the same reasons set forth in the rejections of claims 6-8.

20. As per claims 10-14, they are system claims corresponding to claims 1-9 and they do not teach or define above the information claimed in claims 1-9. Therefore,



claims 10-14 are rejected as being anticipated by Micali for the same reasons set forth in the rejections of claims 1-9.

21. As per claim 15, it is a method claim corresponding to claims 10-14 and it does not teach or define above the information claimed in claims 10-14. Therefore, claim 15 is rejected as being anticipated by Micali for the same reasons set forth in the rejections of claims 10-14.

### ***Communications Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung W. Kim whose telephone number is 571-272-3804. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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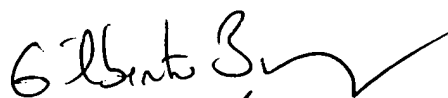


August 18, 2005

Jung W Kim

Examiner

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GILBERTO BARRON JR.  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100